SHADRIN, V.S.; GORODETSKIY, A.F.

Tensoresistance of polycrystalline germanium films. Fiz. tver. tela 5 no.10:3030-3031 O '63. (MIRA 16:11)

1. Novosibirskiy elektrotekhnicheskiy institut.

SHADRIN, V.S.; GORODETSKIY, A.F.

Piezoresistance of germanium. Fiz. tver. tela 5 no.11:3081-3087 N '63. (MIRA 16:12)

1. Novosibirskiy elektrotekhnicheskiy institut.

L 1116-66 EWT(m)/EWP(w)/T/EWP(t)/EWP(b)/EWA(c) IJP(c) JD/GS

ACCESSION NR: AT5020494 UR/0000/64/000/000/0469/0470

AUTHORS: Gorodetskiy, A. F.; Vertoprakhov, V. N.

TITLE: On the effect of dislocations on the microhardness of germanium

SOURCE: Mezhvuzovskaya nauchno-tekhnicheskaya konferentsiya po fizike poluprovodnikov (poverkhnostnyye i kontaktnyye yavleniya). Tomsk, 1962. Poverkhnostnyye i kontaktnyye yavleniya v poluprovodnikakh (Surface and contact phenomena in semiconductors). Tomsk, Izd-vo Tomskogo univ., 1964, 469-470

TOPIC TAGS: semiconducting material, germanium, crystal dislocation, hardness / SR 4A etching agent

ABSTRACT: The dislocation density and microhardness of specimens of n-type germanium with a resistivity of 20 Ω-cm on face (111) were determined in order to supplement the work of others in this area. After mechanical polishing and chemical polishing in SR-4A etching agent, the dislocations of the specimens were revealed by selective etching; some of the specimens were deformed by bending at 650C in order to produce dislocation densities that covered several orders of magnitude. Fragments of the deformed specimens were annealed in a vacuum of

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L 1116-66

ACCESSION NR: AT5020494

10^{-4} mm Hg at 700C for 25 hours. It was shown that annealing had no effect on microhardness and that a change in dislocation density of 5 orders of magnitude has practically no effect on microhardness. Student V. I. Pinayeva took part in the work. Orig. art. has: 1 table.

ASSOCIATION: Kafedra dielektrikov i poluprovodnikov, Novosibirskiy elektrotekhnicheskiy institut (Department of Dielectrics and Semiconductors, Novosibirsk Electrical Engineering Institute)

SUBMITTED: 06Oct64 ENCL: 00 SUB CODE: SS

NO REF SOV: 003 OTHER: 000

Card 2/2

ACCESSION NR: AP4019872 S/0181/64/006/003/0956/0958

AUTHORS: Shadrin, V. S.; Gorodetskiy, A. F.

TITLE: The piezothermoelectromotive force of degenerate n type germanium

SOURCE: Fizika tverdogo tela, v. 6, no. 3, 1964, 956-958

TOPIC TAGS: piezoelectric effect, semiconductor, crystal lattice deformation

ABSTRACT: Almost all parameters determining kinetic coefficients change during unilateral deformation of a semiconductor. Change in electrical conductivity is caused by change in relaxation time, group velocity, density, and distribution function. It has been shown, however, that in the temperature range where the effect of interminimum scattering is small, piezoresistance is determined chiefly by change in the distribution function. The relations of the piezothermoelectromotive force to impurity (arsenic) concentration in n-type germanium are shown in Fig. 1 on the Enclosure. The authors have also obtained an expression for the ratio of the coefficient of piezothermoelectromotive force to piezoresistance on the assumption that the coefficient of thermoelectromotive force at the i-th minimum of degenerate n-type Ge is anisotropic and that the distribution function

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ACCESSION NR: AP4019872

is the principal factor affecting the piezothermoelectromotive force. Values are obtained for this ratio on both n-type and p-type germanium of various resistivities. Orig. art. has: 2 figures and 6 formulas.

ASSOCIATION: Novosibirskiy elektrotekhnicheskiy institut (Novosibirsk Electrical Engineering Institute)

SUBMITTED: 08Jul63 DATE ACQ: 31Mar64 ENCL: 01

SUB CODE: SS, EC NO REF SOV: 001 OTHER: 004

Card 2/3

ACCESSION NR: AP4019872

ENCLOSURE: 01

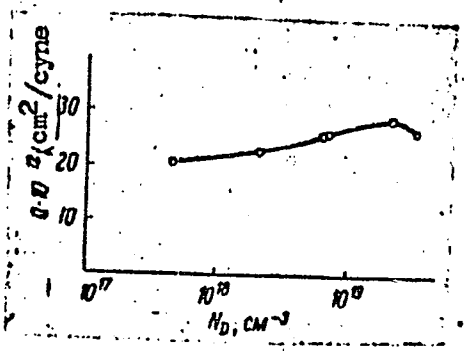

Fig. 1. Dependence of the piezothermoelectromotive force in n-type germanium on the impurity (arsenic) concentration.

Card 3/3

L 08325-67 EWT(m)/EWP(t)/ETI/EWP(k) IJP(c) JD/HW
ACC NR: AR6033788 SOURCE CODE: UR/0058/66/000/007/E069/E069

AUTHOR: Gorodetskiy, A. F.; Lykova, T. K. 37

TITLE: Effect of plastic deformation on the lifetime of excess carriers in n-type silicon

SOURCE: Ref. zh. Fizika, Abs. 7E521

REF SOURCE: Tr. Novosib. elektrotekhn. in-t svyazi. vyp. 1, 1965, 208-210

TOPIC TAGS: plastic deformation, silicon, deformation, charge carrier, p type silicon, flexing, plastic flexing, dislocation density

ABSTRACT: The photoconductivity compensation method was used to measure the lifetime of nonequilibrium electrons (τ) in Si monocrystals, in which the density of dislocation (DD) was varied by means of plastic flexing of crystals at 950C. It was found that τ is inversely proportional to DD. It is known that τ is also reduced by subjecting crystals to thermal treatment. A comparison of these two methods of decreasing τ showed that in plastic deformation τ may be decreased by more than one order below that obtained through thermal treatment. A. Niliysk. [Translation of abstract]

Card 1/1 nst SUB CODE: 20/

KUTNER, M.B.; PODKANTOR, N.N.; GORODETSKIY, A.N.; ROBUSTOV, A.M.; ARIST, L.M.

Mechanization of auxiliary sections in blast furnace practice. Met. i gornorud. prom. no. 2:18-19 Mr-Ap '64. (MIRA 17:9)

GOLOLTSKIY, A.F.; DOBROV, A.I.; [illegible]

Automatic dust removal from open mouth furnace roof [illegible]. Metallurg 9 no.6:18-19 Je '64. (MIRA 17:9)

1. Urgipromez.

TONKONOG, G.V.; ARIST, L.M.; ROP[illegible]TOV, A.M.; KU[illegible], [illegible]; [illegible], N.N.; LITVINENKO, V.I.; GORO[illegible]SKIY, A.N.; [illegible], A.[illegible]; [illegible]NKO, V.V.

Mechanization operations in the casting house and at the hearth of large-capacity blast furnaces. Stal' 25 no.2:102-107 F '65. (MIRA 18:3)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000616230004-9"

Gorodetskiy A S

USSR/Microbiology - Medical and Veterinary Microbiology F-4

Abs Jour : Referat Zhurn - Biol. No 16, 25 Aug 1957, 68583

Author : Lokshina, S.S., Gorodetskiy, A.S.
Title : Presence of Microbes of the Intestinal Group in Hibernating Flies

Orig Pub : V. sb.: Dizenteriya, Kiev, Gosmedizdat U(Ukr)SSR, 1956, 242-244

Abstract : In the winter of 1948-1949 in 335 different institutions investigated-- children's homes, food establishments and homes (in 31 of them there were dysentery patients), 277 flies (Musca domestica) were collected and subjected to a bacteriological investigation; in 170 of these, microbes of the intestinal group were found: in the majority- different variants of intestinal bacilli; in 15-- paracoli A, in 10-- paracoliV; in 2-- paracoli Va; in 7 fecal alkali-producer, in-- 3 Morgan bacilli, in 8--proteus. Among paraintestinal bacilli also a significant

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Abs Jour : Referat Zhurn - Biol. No 16, 25 Aug 1957, 68583

number of variants were found. The ability of isolated types of intestinal and paraintestinal bacteria to agglutinate by dysentery sera of Shiga, Hiss-Flexner and Sonne was verified. Positive results were obtained in 11 cases. Comparing the high microbial population of the intestinal group in hibernating flies with that of flies during summertime (according to data of 1947 in city conditions in May-- 50%, July-- 82% and in September-- 90%) the authors consider it justifiable to place the problem of the importance of hibernating flies in the epidemiology of winter dysentery diseases.

KALYUZHNYY, D.K., prof., otv.red.; GORODETSKIY, A.S., kand.med.nauk, red.; IZDEBSKIY, A.M., kand.med.nauk, red.; KVITNITSKAYA, L.N., kand. med.nauk, red.; KRYZHANOVSKAYA, V.V., kand.med.nauk, red.; MARTYNYUK, V.Z., prof., red.; PETROV, Yu.L., kand.med.nauk, red.; POZNANSKIY, S.S., kand.med.nauk, red.; STOVBUN, A.T., kand.med. nauk, red.; SHMAL', D.D., kand.med.nauk, red.; POTOTSKAYA, L.A., tekhred.

[Hygienic study and improvement of the environment] Gigienicheskoe izuchenie i ozdorovlenie vneshnei sredy. Kiev, Gos.med.izd-vo USSR, 1959. 331 p. (MIRA 13:4)

1. Ukrainskiy nauchno-issledovatel'skiy institut kommunal'noy gigiyeny. 2. Predsedatel' Problemnoy komissii Ministerstva zdravookhraneniya USSR (for Kalyuzhnyy).
(PUBLIC HEALTH)

GORODETSKIY, A.S., kand.med.nauk

Elimination of intestinal infections and invasions as a problem in modern communal hygiene. Vrach. delo no. 1:105-107 '61.
(MIRA 14:4)

1. Ukrainskiy institut kommunal'noy gigiyeny.
(INTESTINES—DISEASES) (PUBLIC HEALTH)

GORODETSKIY, A.S.; KNAFEL', M.Ye.

Change in the number of ascarid eggs in the soil of irrigation fields. Med.paraz.i paraz.bol. no.3:285-287 '61. (MIRA 14:9)

1. Iz Ukrainskogo nauchno-issledovatel'skogo instituta kommunal'noy gigiyeny (dir. instituta - prof. D.N. Kalyuzhnyy).
(ASCARIDS AND ASCARIASIS) (SOILS—MICROBIOLOGY)

GORODETSKIY, A. S.

GORBOV, V.A.; GORODETSKIY, A.S.

Conference on the prevention of soil pollution in populated areas.
Gig. i san. 22 no.7:89-90 Jl '57. (MIRA 10:10)
(SOIL POLLUTION)

GORODETSKIY, A.S.; KNAFEL', M.Ye.

Irrigation fields with special reference to sanitation and helminthology. Gig. i san. 24 no.5:74-76 My '59 (MIRA 12:7)

1. Iz Ukrainskogo nauchno-issledovatel'skogo instituta kommunal'noy gigiyeny.

(SEWAGE,
field irrigation, transm. of helminths (Rus))
(AGRICULTURE,
field irrigation with sewage, transm. of helminths (Rus))
(HELMINTHS,
transm. by field irrigation with sewage (Rus))

GORODETSKIY, A.S.; LOKSHINA, S.S.

Dynamics of the quantitative distribution of coli bacilli in sewage irrigation soil. Gig. i san. 26 no.9:88-89 S '61. (MIRA 15:3)

1. Iz Ukrainskogo nauchno-issledovatel'skogo instituta kommunal'noy gigiyeny.
(SEWAGE IRRIGATION) (ESCHERICHIA COLI)

L 27627-66 EWT(1)/T JK

ACC NR: AP6018014 SOURCE CODE: UR/0250/65/000/012/0028/0031

AUTHOR: Grigor'yeva, L. V. (Candidate of medical sciences); Gorodetskiy, A. G. (Candidate of medical sciences); Omel'yanets, T. G. (Candidate of medical sciences); Bordanenko, L. A. (Candidate of medical sciences)

ORG: Kiev Scientific Research Institute of General and Communal Hygiene (Kiyevskiy nauchno-issledovatel'skiy institut obshchey i kommunal'noy gigiyeny)

TITLE: Survivability of bacteria and viruses in vegetables irrigated with infected water

SOURCE: Gigiyena i sanitariya, no. 12, 1965, 28-31

TOPIC TAGS: bacteria, virus, human ailment, bacteriology, virology, agriculture crop

ABSTRACT: The use of liquid wastes to irrigate the soil harbors the danger of infecting the vegetable crops, particularly when the sprinkling method is employed. In this connection, the time span of survival of pathogenic bacteria and viruses in vegetable crops is of major significance. The published literature on this subject is contradictory. To bring some clarity into this matter, the authors investigated the survivability of pathogenic bacteria of the intestinal group (Salm. typhi murium, Shig. sonnei, Shig. Flexneri), Coxsackie viruses of group A (A5, A7 and A14), and E. coli in the foliage and fruits of plants irrigated with infected water (tomatoes, lettuce, and sweet pepper, i.e., vegetables which are most often eaten raw).

UDC: 613.26:628.37/: 576.8.095.1

Card 1/2

L 27527-66

ACC NR: AP6018514

This was followed by 21 series of experiments which revealed that the survivability of the pathogenic microorganisms differs depending on the biological properties of a particular crop. Intestinal bacteria survive longer in the foliage of tomatoes grown in shadow (6-10 days) than in the foliage of tomatoes grown in the sun (3-4 days). They survive longer in the foliage of sweet pepper than in the foliage of lettuce, and they survive longer in the fruits than in the foliage. The same pattern can be observed for viruses: their survivability also depends on the type of crop, conditions and period of vegetation, and object of irrigation (foliage or fruit), though in general they survive somewhat longer than bacteria. Of the pathogenic bacteria of the intestinal group, B. breslau survived the longest (18 days), and Shigella sonnei the shortest (2-11 days). Of the three crops investigated, lettuce foliage -- possibly because of its smoothness -- provided the least favorable conditions for survival of bacteria and viruses, and tomato foliage -- the most favorable. Orig. art. has: 2 figures. [JPRS]

SUB CODE: 06, 02 / SUBM DATE: 18Jan65 / ORIG REF: 006 / OTH REF: 003

Card 2/2

KRUGLITSKIY, G.V., inzh.; GORODETSKIY, A.Yu., inzh.

Network for controlling contactors in testing the life of a relay.
Elektrotekhnika 35 no.10:37-39 O '64.
(MIRA 17:11)

GORODETSKIY, B.

At the head of the group. Zhil.-kom.khoz. 11 no.6:3 Je '61.
(MIRA 14:7)

1. Sekretar' partorganizatsii remontno-stroitel'nogo upravleniya Baumanskogo rayona Moskvy.
(Moscow—Socialist competition)

L 18936-63 EWT(1)/FCC(w)/FS(v)-2/BDS/ES(v) AFFTC/ESD-3/APGC
Pe-4/Pg-4/Po-4/Pq-4 CW
ACCESSION NR: AP3004213 S/0018/63/000/007/0082/0083

77

AUTHOR: Gorodetskiy, B. (Major)

TITLE: Plotting the coordinates of sounding objects. Intersection device 10

SOURCE: Voyenny'y vestnik, no. 7, 1963, 82-83

TOPIC TAGS: sounding object, PUO-3, intersection device

ABSTRACT: A description is given of the construction and operation of the device developed by the author for the PUO-3 and shown in Figure 1 of the Enclosure. The device consists of two parts: the mobile part (1) and the immobile (2), which are screwed on to the corresponding parts of the PUO-3. On the mobile part, the sine scales are plotted in mils to the right and left of the zero mark (3). Each small graduation has a value of 0.002. The scales are graduated with the PUO-3 azimuth scale. The use of this device with the PUO-3 makes possible the rapid and accurate determination of the coordinates of sounding objects; it also facilitates firing for adjustment and plotting the sub-base centers and the normal lines on the plotting board.

Card 1/3

L 18936-63

ACCESSION NR: AP3004213

Orig. art. has: 1 figure.

ASSOCIATION: Soviet Army

SUBMITTED: 00 DATE ACQ: 07Aug63 ENCL: 01

SUB CODE: CG NO REF SOV: 000 OTHER: 000

Card 2/3

GORODETSKIY, B., mayor; LAGUNOV, Ye., kapitan

Reconnaissance of sound targets. Voen.vest. 43 no.7:82-85 Jl '63.
(MIRA 16:11)

GORODETSKY, B. M.

GORODETSKII, B. M., KAPUSHEVSKII, A. S.

Certain errors in application of artificial pneumothorax. Prob. tuberk., Moskva No. 3, May-June 50. p. 53-4

1. Of the Ukrainian Tuberculosis Institute (Director—Prof. B. M. Khmel'nitskiy).

CLML 19, 5, Nov., 1950

GORODETSKIY, B. M.

Various types of thoracoplasty in the treatment of pleural tuberculous empyemas. Probl. tuberk., Moskva no.4:45-48 July-Aug 1951. (CIML 21:1)

1. Of the Surgical Clinic (Head -- Prof. A. G. Kiselev), Ukrainian Scientific-Research Tuberculosis (Director -- Prof. B. M. Khmel'nitskiy), Khar'kov.

1. GORODETSKIY. B. M.

2. USSR (600)

4. Chest - Tumors

7. Problem of erroneous diagnosis in intrathoracic tumors in children, Probl. tub., No. 5, 1952.

9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

GORODETSKIY, B.M.

Results of treatment of suppurative tuberculous pleurisy by active pulmonary decortication. Probl. tuberk., Moskva. No.5:37-41 Sept-Oct 1953. (OIML 25:5)

1. Senior Scientific Associate. 2. Of the Surgical Department (Supervisor -- Prof. A.G. Kiselev), Ukrainian Institute of Tuberculosis (Director -- Candidate Medical Sciences N.M. Ivanov), Khar'kov.

GORODETSKIY, B. M.: Doc Med Sci (diss) -- "Purulent tuberculosis pleurisy and methods of treating it". Khar'kov, 1957. 15 pp (Min Health Ukr SSR, Khar'kov Med Inst), 200 copies (KL, No 5, 1959, 154)

GORODETSKIY, B.M.; NURMAMEDOV, A.D.

Role and site for carrying out thoracocautery in treating pulmonary tuberculosis at the present stage. Azerb. med. zhur. no.6:70-73 Je '61. (MIRA 14:6)

(TUBERCULOSIS)

GORODETSKIY, B.M.

Surgical tactics in pulmonary hemorrhages in pulmonary tuberculosis patients. Azerb. med. zhur. no.12:24-27 '62. (MIRA 17:4)

GORODETSKIY, B.M., prof.; AKHMEDOV, B.B., kand. med. nauk

Results of pulmonectomy in treating tuberculosis. Azerb. med. zhur. 41 no. 11:59-62 N '64. (MIRA 18:12)

1. Iz legochno-khirurgicheskogo otdeleniya (zav. - prof. B.M. Gorodetskiy) Respublikanskogo nauchno-issledovatel'skogo instituta tuberkuleza (dir. - kand. med. nauk A.D. Nurmamedov). Submitted Nov. 11, 1963.

GORODETSKIY, B.M., prof.

Results of pulmonary resections in tuberculosis. Azerb.med.zhur. 42 no.1:69-71 Ja '65. (MIRA 18:5)

1. Iz legochno-khirurgicheskogo otdeleniya (zav. - prof. B.M. Gorodetskiy) Azerbaydzhanskogo respublikanskogo nauchno-issledovatel'skogo instituta tuberkuleza (dir. - kand.med.nauk A.D. Nurmamedov).

GAPANOVICH, M.D.; GORODETSKIY, B.Ya.

The DKFM bell differential manometer. Izm.tekh. no.9:23-25 S '60. (MIRA 13:9)

(Manometer)

GORODETSKIY, D. A.

USSR/Electricity - Personalities

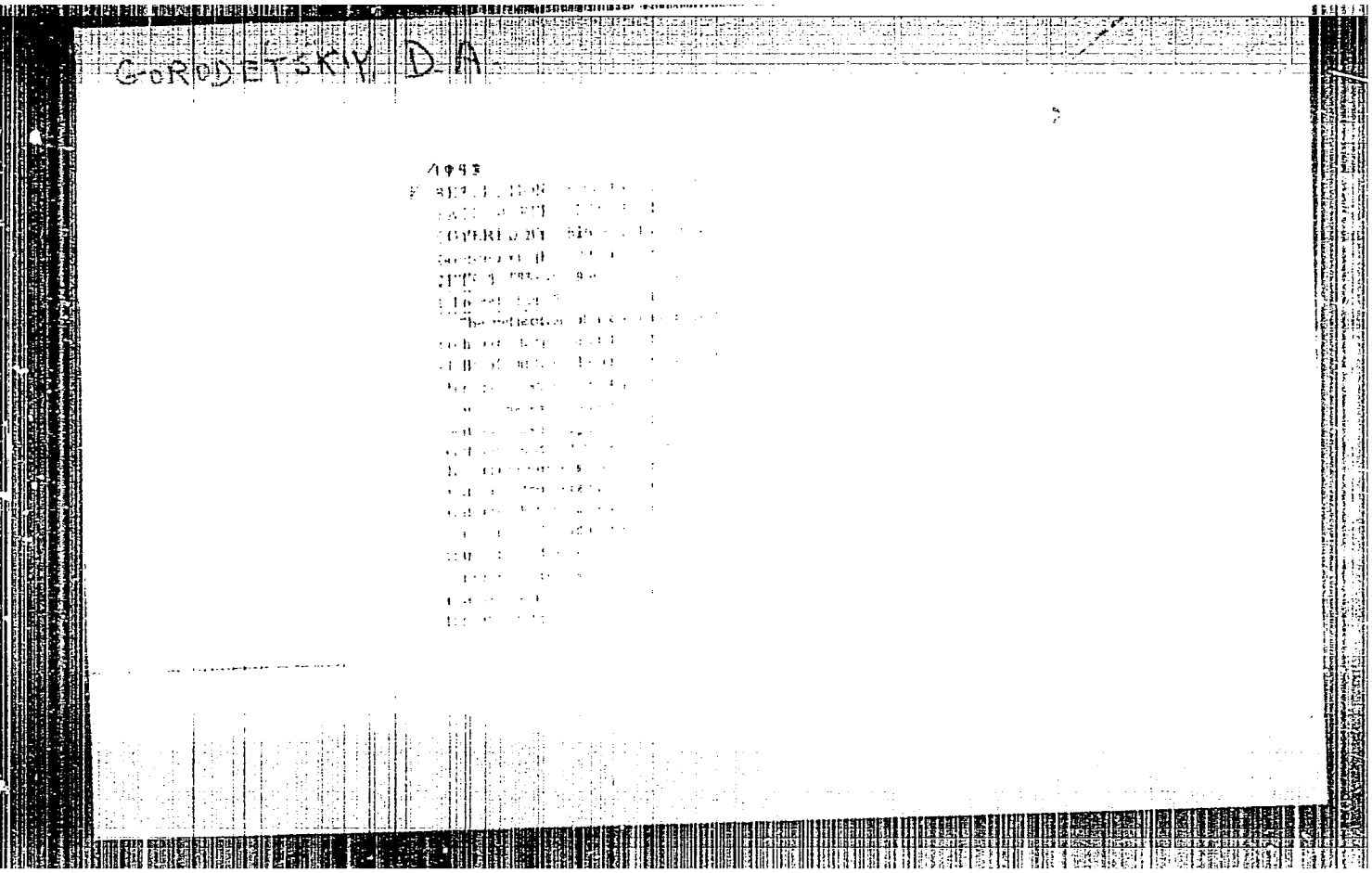
Dec 51

"Academician V. S. Kulebakin (His 60th Birthday)," V. A. Trapeznikov, M. P. Kostenko, E. M. Petrov, N. V. Gorokhov, V. L. Lomsiyevskiy, B. S. Sotskov, M. G. Chilikin, G. N. Petrov, A. N. Larionov, A. G. Iosif'yan, E. S. Bobov, D. A. Gorodetskiy

"Elektrichestvo" No 12, p 88

Kulebakin is very well known in the fields of elec machines, elec equipment, automatic control, and illuminating engineering and has specialized for many years in aviation elec equipment. A major general in the aviation engineering service, he was one of the founders of the All-Union Elec Eng Inst and the Inst of Automatics and Telemechan and has headed chairs at the Moscow Power Eng Inst imeni Molotov and the Air Force Eng Acad imeni Zhukovskiy.

201T87



GORODETSKIY, D. A. Cand Phys-Math Sci -- (diss) "Reflection of Slow Electrons From the Surface of Solids." Kiev, 1957. 13 pp 20 cm. (Min of Higher Education Ukrainian SSR, Kiev State Univ im T. G. Shevchenko), 100 copies (KL, 28-57, 109)

SOV/58-59-5-11022

Translation from: Referativnyy Zhurnal Fizika, 1959, Nr 5, p 159 (USSR)

AUTHOR: Gorodetskiy, D.A.

TITLE: On Calculating the Regions of Anomalous Growth of the Slow-Electron Reflection Coefficient

PERIODICAL: Nauk. Shchorichnik. Radiofiz. fak. Kiivs'k. un-tu, 1956, Kiyev, 1957, pp 465 - 466 (Ukr.)

ABSTRACT: Following MacColl (MacColl, L.A., Bell System Techn. J., 1951, Vol 30, p 888), the author calculated the positions of the regions of total reflection of slow electrons in some metals (W, Au, Ag, Cu, Ba) and germanium for two values of the parameter λ (which is adopted as equal to the lattice constant and the minimum interatomic distance). A comparison of the calculations with the experimental data disclosed some parallelism.

V.M. Garvilyuk

Card 1/1

GORODETSKIY, D.A.

109-3-6/23

AUTHOR: Gorodetskiy, D.A.

TITLE: Reflection of Slow Electrons from the Surface of Certain Metals and Semi-conductors (Otrazheniye medlennykh elektronov ot poverkhnosti nekotorykh metallov i poluprovodnikov)

PERIODICAL: Radiotekhnika i Elektronika, 1958, Vol.III, No.3, pp. 345 - 354 (USSR).

ABSTRACT: The work reports an experimental investigation of the secondary emission and elastic reflection of low-energy electrons from the layers of Au, Ag, Ba, Ge and BaO (which were obtained by sputtering in high vacuum), and also of the thin films of Ba and BaO deposited on Ge. The measurements were carried out in a special sealed-off tube (see Fig.2). A beam of low-energy electrons was formed in an electron gun similar to that described by Gimpel and Richardson (Ref.2). The potentials of the electrodes of the gun were chosen in such a manner as to obtain satisfactory focusing of the primary electrons at the target. A glass sphere coated with aquadag, and having a diameter of 35 mm, was used as the collector of the reflected and secondary electrons. The target was in the form of a tungsten ribbon, having dimensions of 5 - 7 mm and was coated with a layer of an investigated substance. The

Card1/3 target could be placed either inside the collector (for the

Reflection of Slow Electrons from the Surface of Certain Metals and Semi-conductors

measurement of the reflection and the secondary emission) or it could be moved away from the sphere. In the second position, the target was situated inside a tantalum cage and it could be heated by the electron bombardment from a tungsten spiral. The tantalum cage contained evaporators of the investigated substances. The tube was provided with an Alpert-type ionisation gauge, which could be used at pressures down to 2×10^{-9} mmHg; the tube was also furnished with a Ba getter. The measurements on the layers of Au, Ag, Ba and Ge (carried out by employing the above tube) are reported in Figs. 2, 3 and 4. Fig. 2 shows voltage current characteristics of the target from which it was possible to evaluate the work functions of the substances. It was found that these are 5 eV for Au, 4.30 eV for Ag, 4.76 eV for Ge and 2.6 eV for Ba. Fig. 3 shows the reflection coefficient R of the substances as a function of the accelerating voltage V_p, while Fig.4 illustrates the dependence of δ on V_p; δ is the overall coefficient of the reflection and the secondary emission of the electrons. Curves representing R as a function of V_p

Card2/3

GORODETSKIY D A

55-1-2/56

AUTHOR: Gorodetskiy, D. A.

TITLE: Reflection of Slow Electrons From the Surface of Pure Tungsten and From Tungsten Covered With Thin Films II (Otrazheniye medlennykh elektronov ot poverkhnosti chistogo i pokrytogo tonkimi plenkami vol'frama. II).

PERIODICAL: Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki, 1958, Vol. 34, Nr 1, pp. 7-13 (USSR).

ABSTRACT: In former experiments the role of the polycrystalline state remained unexplained. Therefore the authors carried out experiments at a monocrystalline tungsten target. The present paper reports on the results of these experiments and on further experiments on the influence of thin films on the reflection of slow electrons. At first, a short report is given on the measuring methods. The reflection coefficient was measured in evacuated tubes, the essential construction of which was already described earlier (reference 1). The curves for the dependence of the reflection coefficient R and the secondary emission δ on the energy v_p of the primary electrons (which were absorbed in a high vacuum immediately after the heating of the tungsten plate) obtained at the monocrystalline

Card 1/3

tungsten plate are illustrated.in a diagram. The curves almost agree with the earlier obtained curves. A target of rolled tungsten band consists of a series of small equally orientated crystals and is similar to a monocrystal. Moreover the polycrystalline state does not play a role in the increase of the reflection in the case of an increasing energy of the electrons. In any case the experiments with monocrystals do not remove the anomalies from the course of the reflection coefficient, i.e. its increase with increasing energy of the electrons. The author also carried out experiments about the vaporizing of a tungsten layer upon a monocrystalline target. These results are also illustrated in a diagram. The depositing by evaporation of tungsten alters a little the absolute values of R and δ, the anomalous course in the region of small energies is, however, conserved. In connection with the problem of the potential barrier at the boundary between the metal covered by the active film and the vacuum the author investigated the reflection of slow electrons from the surface of monocrystalline tungsten covered with films which reduce the work function. The corresponding results for the system Barium oxide on a tungsten monocrystal are given here. The

Reflection of Slow Electrons From the Surface of Pure Tungsten and From Tungsten Covered With Thin Films. II. 56-1-2/36

reflection of slow electrons can reduce the constant A in the formula of Richardson-Deshman by 30 - 50%, compared to its theoretical value. The last section deals with the diffraction of slow electrons at a tungsten monocrystal covered with a barium film. According to the results obtained here the alteration of the work function is by no means a specific characteristic of a complicated polyatomic surface. There are 3 figures and 20 references, 7 of which are Slavic.

ASSOCIATION: Kiyev State University (Kiyevskiy gosudarstvennyy universitet).

SUBMITTED: May 8, 1957

AVAILABLE: Library of Congress

Card 3/3

S/181/61/003/005/011/042
B101/B214

26.2312 9,4300 (1164, 1385, 1072)
26.1640

AUTHORS: Gorodetskiy, D. A. and Kornev, A. M.

TITLE: Diffraction of slow electrons on the surface of tungsten coated with thin layers of adsorbed barium or barium oxide

PERIODICAL: Fizika tverdogo tela, v. 3, no. 5, 1961, 1373 - 1383

TEXT: Starting from the paper of H. Farnsworth (Ref. 3, see below) the structures of the system Ba - W, BaO - W were investigated by means of the diffraction of slow electrons. The method of C. Davisson and L. Germer (Ref. 6, see below) was employed. The tube represented in Fig. 1 contained an electron gun with a V-shaped tungsten cathode. The target consisted of a single crystal of W surrounded by a spherical collector having a slit for the beam of the primary electrons. Behind this was the movable side collector whose potential was +5 v with respect to the gun cathode. The target could be moved radially and axially on a molybdenum rod so that the azimuth angle of the side collector could be varied. Coaters were fitted on the spherical collector by means of which the target was coated with Ba or BaO. The amount of Ba or BaO on the tar-

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Diffraction of slow electrons...

get was determined by measuring the work function of the target. The superhigh vacuum was produced by means of a titanium ionization pump consisting of an ЛМ-2 (LM-2) ionization manometer from which the ion collector was separated and which contained the two titanium sprayers. By means of this conducting titanium coating was put on the glass surface; it was given a negative potential and attracted ions. The tube was evacuated and heated several times up to 450°C; the target was heated by electron bombardment till the vacuum became constant at $(1 - 2).10^{-7}$ mm Hg. Then a vacuum of $(2 - 3).10^{-9}$ mm of Hg was obtained by means of the titanium pump. The side collector current was recorded by means of an amplifier and ПСР-1-01 (PSR-1-01) recorder. Currents of the order of 10^{-13} amp could be measured. First the azimuthal angle of the side collector was chosen to obtain the most intense diffraction image and then the function $\lambda = f(\sin\theta)$ was recorded (θ = the azimuthal angle). I) Fig. 3 shows the diffraction image of the pure W. The two straight lines correspond to the first and second orders of reflection. The lattice constant d is equal to 3.1 Å. The divergence from the straight line at low θ is explained as

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Diffraction of slow electrons...

being due to the (110) plane making an angle of about 2° with the surface. II) Fig. 4 shows the diffraction image on coating W with Ba. The intensities of the maxima along the straight lines n = 1 and n = 2 are altered. Fig. 5 shows this change for different thicknesses of Ba coating for an azimuthal angle 31.5° (at which the most intense new diffraction image was observed) and 49.5° (most intense maximum for pure W). It is concluded that the structure of the Ba film has the same order and lattice constant as W. By increasing the coating of W with Ba a second unordered layer is formed and the maxima decrease. III) The diffraction image of the coating of heated W with BaO is shown in Fig. 7. The majority of the new maxima correspond to a lattice constant whose value is double that of W. No explanation can yet be given of the maxima not lying on the straight line. The results do not agree with those of P. Russel and A. Eisenstein (see below) since they worked with fast electrons and could not observe the monomolecular layer. All the data of the present authors contradict the hypothesis of L. Nergard (see below) according to which BaO collects into islands on heating leaving the greater part of the surface of W free. V. Gavrilyuk is mentioned. Professor N. D. Morgulis, Corresponding Member of AS UkrSSR, is thanked for discussions. There are 7 figures and

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Diffraction of slow electrons... S/181/61/003/005/011/042
B101/B214

9 references: 3 Soviet-bloc and 6 non-Soviet-bloc. The 4 most important references to English-language publications read as follows: L. Negard, RCA Rev., 18, 486, 1957; P. Russel, A. Eisenstein, J. App. Phys., 25, 954, 1954; R. Farnsworth, Phys. Rev., 49, 605, 1936; C. Davisson, L. Germer, Phys. Rev., 30, 705, 1927.

ASSOCIATION: Kiyevskiy gosudarstvennyy universitet im.T.G.Shevchenko
(Kiyev State University imeni T.G.Shevchenko)

SUBMITTED: May 14, 1960 (initially)
December 20, 1960 (after revision)

Card 4/8

GORODETSKIY, D.A. [Horodets'kyi, D.O.]; KORNEV, A.M. [Korniev, O.M.]

Device for visual observation of the diffraction of slow electrons. Ukr. fiz. zhur. 6 no.3:422-424 My-Je '61. (MIRA 14:8)

1. Kiyevskiy gosudarstvennyy universitet im. T. Shevchenko.
(Electrons--Diffraction)

AGEYKIN, V.S.; DARTNOVSKIY, O.A.; GUDIK, V.F.; GORODETSKIY, D.A.; ISHCHUK, V.A.; KORCHEVOY, Yu.P.; NAUMOVETS, A.G.; PAVCHENKO, O.A.

Eleventh Conference on the Physical Principles of Cathode Electronics. Radiotekh. i elektron. 9 no.6:1099-1113 Je '64. (MIRA 17:7)

L 6112-65 EWT(1)/EWT(m)/T/EEC(b)-2/EWP(q)/EWP(b) IJP(c)/AS(mp)-2/ASD(a)-5/
ESD(gs)/AFWL/ASD(f)/ESD(t)/RAEM(t) BG/JD/JW
ACCESSION NR: AP4044650

AUTHOR: Gorodetskiy, D.A.; Korner, A.M.; [illegible]

TITLE: Structure of an adsorbed barium f[illegible]
[illegible]eport, Third All-Union Confere[illegible]
[illegible]ev 16-21 Sept 1963[illegible]

SOURCE: AN SSSR. Izv. Seriya fizicheskaya, v.28, no.8, 1964, 1337-1339

TOPIC TAGS: thin film, adsorption, electron diffraction, tungsten, single crystal, barium

ABSTRACT: The structure of adsorbed barium thin films on a tungsten single crystal was investigated by slow electron diffraction. The diffraction pattern could be continuously observed during the deposition. The diffraction apparatus has been described previously (Kristallografiya, Kristallografiya.zh.6,422,1961). The tungsten crystal was etched before it was mounted and could be heated to 2000°K. The barium was evaporated from a

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000616230004-9"

[illegible] AP1044650

[illegible] between the crystal with its adsorbed [illegible] being heated to 4500°K the previously characteristic of the (110) face of tungsten appeared for several hours at 2 [illegible] which are ascribed to the ordered [illegible] tungsten diffraction pattern gradually weakened when barium was evaporated onto the cold surface, and when the barium film became thick, as evinced by a value of the work function characteristic of thick barium films, the diffraction pattern disappeared entirely. When the crystal with its disordered barium film was heated to 500°K the first signs of a new diffraction pattern [illegible] became strong after 10 min heating at 900°K. This new pattern was found to correspond to an ordered structure with one barium atom [illegible] (the "8 x 1" structure). When the crystal was heated above 900°K the "8 x 1" structure pattern gradually gave way to the diffraction pattern characteristic of the tungsten surface. Evidence of a more dense structure was sought by gradually evapo-

tungsten surface. Evidence of a more dense structure was sought by gradually evaporating barium onto the tungsten surface at different temperatures. Some evidence of a "4 x 1" structure was found, but the diffraction maxima were too weak to be photographed. The authors express their deep gri[illegible]

L 6812-65
ACCESSION NR: AP4044850

workers for making available the tungsten [illegible]
and 2 figures.

ASSOCIATION: Kafedra elektroniki Kiyevskogo [illegible]
[illegible] Department, Kiev State University [illegible]

SUBMITTED: 00

SUB CODE: SS

3/3

L 9251-66 EWT(m)/T/EWP(t)/EWP(b)/EWA(c) IJP(c) JD/JG

ACC NR: AP5022723 SOURCE CODE: UR/0181/65/007/009/2780/2788

AUTHOR: Gorodetskiy, D. A.; Mel'nik, Yu. P. 44 55 44 55

ORG: Kiev State University im. T. G. Shevchenko (Kiyevskiy gosudarstvennyy universitet) 44, 55

TITLE: Structure of barium oxide films on surface (110) of a tungsten single crystal 44, 55, 27

SOURCE: Fizika tverdogo tela, v. 7, no. 9, 1965, 2780-2788

TOPIC TAGS: tungsten, single crystal, epitaxial growing, x ray diffraction analysis, barium oxide, ceramic film

ABSTRACT: The authors describe a newly designed device for studying barium oxide films on tungsten by visual observation of the diffraction pattern on a luminescent screen. Electrons from the specimen pass through the first grid and fall into the decelerating field generated by the second grid. Elastically reflected electrons have sufficient energy to overcome this potential field and are accelerated to 4 kev, activating the luminescent screen. The structures of both monomolecular and thick (5-20 molecular layers) films of BaO were studied on the (110) face of a tungsten single crystal. The two-dimensional reciprocal lattices of the specimens are shown as well as photographs of the diffraction patterns. The molecules in a monomolecular layer have an ordered arrangement after heating, with one molecule of BaO per eight atoms

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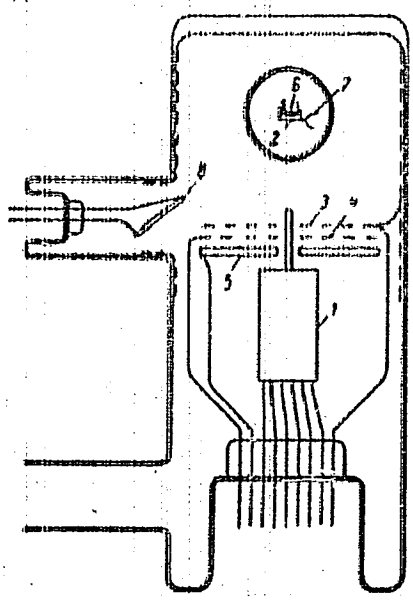

of tungsten. Thick layers of barium oxide have a crystalline structure with face (100) parallel to the tungsten surface. When a thick layer of BaO is vaporized onto the monomolecular structure, a change in observed in the orientation of the crystals. When thick layers of vaporized BaO are heated, the resulting diffraction pattern may be attributed to an oriented layer of Ba_3WO_6. The creation of two-dimensional ordered structures on the surface of a crystal may be applied in some practical instances for controlling epitaxial growth. Orig. art. has: 6 figures.

Fig. 1. Diagram of the experimental instrument: 1--electron gun; 2--crystal; 3 and 4--grids; 5--luminescent screen; 6--spiral for heating the crystal; 7--thermocouple; 8--BaO source

SUB CODE: 20/ SUBM DATE: 14Apr65/ ORIG REF: 005/ OTH REF: 006

Card 2/2 pw

GORODETSKIY, D. M. (Veterinary Doctor, Moscow). (Abstracted by NOSKOV, A. I.)

"Sulfur dioxide in hypodermatosis of cattle".....
Veterinariya, vol. 39, no. 3, March 1962 pp. 32

86095

S/112/59/000/012/006/097/
A052/A001

9.4300 (3203, 1043, 1143)

Translation from: Referativnyy zhurnal, Elektrotekhnika, 1959, No. 12, p. 8, # 23975

AUTHOR: Gorodetskiy, D. O.

TITLE: On the Calculations of Regions of an Anomalous Increase of the Reflection Coefficient of Free Electrons

PERIODICAL: Nauk. shchorichnyk. Radiofiz. fak. Kyivs'k. un-tu, 1956, Kyiv, 1957, pp. 465-466 (Ukrainian)

TEXT: On the basis of Mackol's study (Bell System Techn. J., 1951, 30, 888) a calculation of the position of regions of total reflection of free electrons for some metals and Ge has been carried out for two values of parameter λ equal to the lattice constant and to the least interatomic distance. The regions are determined which can considerably increase the reflection coefficient of electrons and to give rise to its anomalous increase with an increase of energy. There is a certain parallelism between the data of the calculation and those of the investigations.

A. F. A.

Translator's note: This is the full translation of the original Russian abstract.

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GORODETSKIY, D.O. [Horodets'kyi, D.O.]; MAMUTA, G.D. [Mamuta, H.D.]

Investigating electron characteristics of thin film systems.
Visnyk Kyiv.un.no.2.Ser.fiz.ta khim. no.1:79-85 '59. (MIRA 14:8)
(Metallic films)

GORODETSKIY, David Yevseyevich; ZIHENGAR, Lev Avgustovich; KOROSTYLEV, A.Ye., redaktor; OKHRIMENKO, V.A., redaktor; NADEINSKAYA, A.A., tekhnicheskiy redaktor.

[Innovations in the technology and organization of stripping work in coal pits] Novoe v tekhnologii i organizatsii vskryshnykh rabot na ugol'nykh razrezakh. Moskva, Ugletekhizdat, 1955. 79 p. (MLRA 9:4)
(Coal mines and mining)

RZHEVSKIY, V.V., doktor tekhnicheskikh nauk.;SOKOLOVSKIY, M.M.;SKVORCHEVSKIY, N.D.; GORODETSKIY, D.Ye.;SUSHCHENKO, A.A.

"Handbook for engineers and technicians on strip mining". Gor zhur. no.3:80 Mr '57. (MLRA 10:4)

1. Glavnyy inzhener upravleniya otkrytykh rabot Ministerstva ugol'noy promyshlennosti SSSR (for Sokolovskiy). 2. Glavnyy inzhener Kounradskogo rudnika (for Skvorchevskiy). 3. Glavnyy inzhener kombinata Sverdlovskugol' (for Gorodetskiy). 4. Glavnyy inzhener proyektov TSentrogiproshakhta (for Sushchenko).
(Strip mining)

GORODETSKIY, D.Ye., inzh.

New safety measures used in mines and pits of the Sverdlovsk Economic Council. Bezop.truda v prom. 2 no.10:24-26 O '58. (MIRA 11:11)

(Sverdlovsk Province--Mining engineering--Safety measures)

GORODETSKIY, David Yevseyevich; ZHURIN, Grigoriy Mikhaylovich; ZUBAREV, Leonid Aleksandrovich; ADAMOVA, L., red.; CHEMKO, L., tekhn. red.

[Put the reserves of the fuel industry to use]Rezervy toplivnoi promyshlennosti v deistvii. Sverdlovsk, Sverdlovskoe knizhnoe izd-vo, 1961. 110 p. (MIRA 15:8)
(Coal mines and mining) (Peat)

GORODETSKIY, D. Ye.

Practice of mechanizing work and equipment repair in strip mines of the Vakhrushevugol' Trust. Sbor. trud. MISI no.39: 435-436 '61. (MIRA 16:4)

1. Nachal'nik Upravleniye toplivnoy promyshlennosti Sverdlovskogo soveta narodnogo khozyaystva.

(Karpinsk region--Strip mining--Equipment and supplies)

GORODETSKIY, B.M.

The 1K865-type ingot cutting machine. Biul.tekh.-ekon.inform. (MIRA 11:8)
no.6:19-21 '58.
(Cutting machines)

GORODETSKIY, E.M.

The KZh-21 and KZh-22-type drilling and boring machines. Biul.tekh.-ekon.inform. no.11:26-28 '59. (MIRA 13:4)
(Drilling and boring machinery)

GORODETSKIY, E.M.

The KZh-11-type deep-boring machine. Biul.tekh.-ekon.inform. no.11:31-33 '59. (MIRA 13:4)
(Drilling and boring machinery)

S/193/60/000/009/002/013
A004/A001

AUTHOR: Gorodetskiy, E.M.

TITLE: The KZh(KZh)-34 Machine for the Building Up of Rolling Mill Rollers 14

PERIODICAL: Byulleten' tekhniko-ekonomicheskoi informatsii, 1960, No. 9, pp. 8-11

TEXT: In cooperation with the Institut elektrosvarki im. Ye.O.Patona AN UkrSSR (Electric Welding Institute im. Ye.O. Paton of the AS UkrSSR) the Kramatorskiy zavod tyazhelogo stankostroyeniya (Kramatorsk Heavy Machine Tool Plant) has designed and manufactured in 1960 new building-up machines for the reconditioning of steel rollers. The build-up layer is welded on with the aid of melting electrodes under a layer of flux powder. If powder wire of the ПП-3Х2В8 (PP-ZKh2V8) grade is used, the durability of rollers is considerably increased (by 6-8 times). The technology of automatic building up was developed and introduced by the Electric Welding Institute im. Ye.O. Paton of the AS UkrSSR. A high-quality building up of all kinds of rollers (including rollers with curvilinear gage profiles) is only possible, if the surface to be built up is in a horizontal position or possesses an angle of inclination of not more than 20°.

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S/193/60/000/009/002/013
A004/A001

The KZh (KZh)-34 Machine for the Building Up of Rolling Mill Rollers

The supporting part of the machine together with the roller can be turned through an angle of ± 70°, can be lowered, lifted, moved to the right and left side relative to the building-up apparatus. Thus it is possible, by the displacements indicated, to adjust the surface built-up in a position which ensures the highest efficiency and high-quality building up. The author gives a detailed description of the design and operation of the new machine and points out that building up should be effected at temperatures in the range of 370-400°C. The temperature of the preheated roller is maintained with the aid of an inductor of industrial frequency current. The inductor is mounted on a trolley with individual drive so that it can be displaced along the machine bed. The author presents the following technical data of the KZh-34 machine: height of centers = 750 mm; admits between centers, largest = 4,200 mm, smallest = 1,100 mm; diameter of rollers to be built up = 250-850 mm; top weight of rollers = 8,000 kg, length of bed travel = ± 1,100 mm, travel of building-up apparatus = 2,400 mm, number of electromotors = 9, overall dimensions of machine for horizontal position of bed (length x width x height) = 7,500 x 5,500 x 6,000 mm, weight of machine = 34 tons. There is 1 figure.

Card 2/2

GORODETSKIY, E.M.

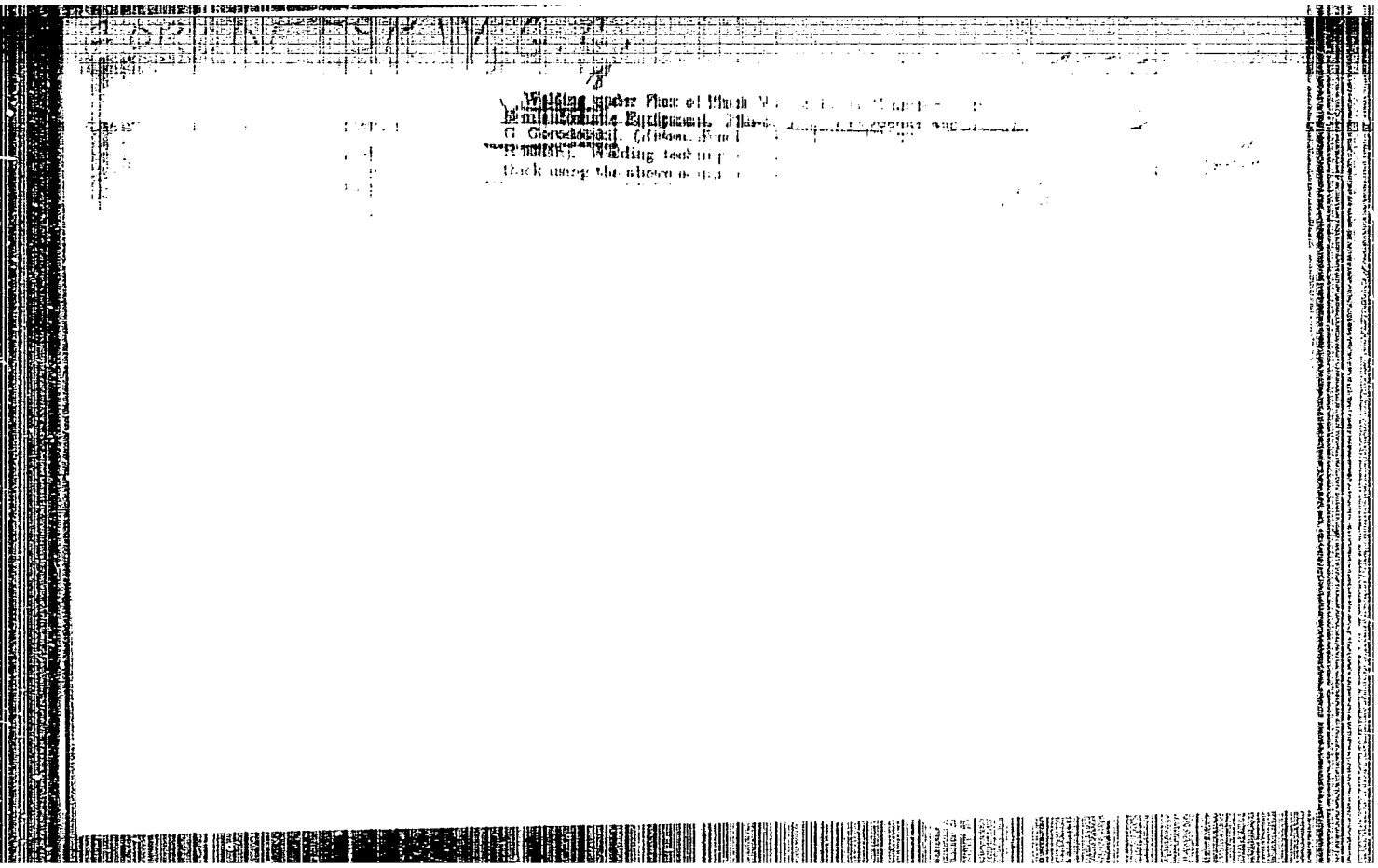
The KZh-34 machine for building up rolls of rolling mills. Biul. tekh.-ekon.inform. no.9:8-11 '60. (MIRA 13:10)
(Rolls (Iron mills)--Maintenance and repair)
(Electric welding)

GORODETSKIY, E.M.

The KZh-Ll automatic line. Biul.tekh.-ekon.inform.Gos.nauch.-issl.inst.nauch.i tekh.inform 17 no.11:42-44 N '64.
(MIRA 18:3)

GORODETSKIY, F.M., inzh.

Automatic line for processing electrodes. Mekh. i avtom. proizv. 19 no.8:5-7 Ag '65. (MIRA 18:9)



GORODETSKIY, G.M.; LIGOTSKIY, L., redaktor.

[Calculations of electric networks] Raschet elektricheskikh setei. Kiev, Gos. izd-vo tekhn. lit-ry, 1953. 346 p.(MLRA 7:8)
(Electric networks)

ZAYGHROV, Iosif Borisovich; prinimali uchastiye: GVOZDEVICH, A.M., SHMORGUN, Ya.Sh., inzh.; TIMOFEYEV, T.S., inzh.; ARAV, R.I., inzh., KULESHOVA, A.I., inzh.; GORODETSKIY, G.Ye., inzh.; SOSHENKO, M.N., inzh. retsenzent; SIROTIN, A.I., red.; EL'KIND, V.D., tekhn. red.

[Reclamation of used sand mixtures; design of pneumatic reclaimers] Regeneratsiia otrabotannykh smesei v liteinom proizvodstve; konstruktsiia i raschet pnevmaticheskikh regeneratorov. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1961. 181 p. (MIRA 14:5)

1. Nachal'nik otdela mekhanizatsii Moskovskogo transformativnogo zavoda (for Gvozdevich, Shmorgun, Timofeyev, Arav, Kuleshova, Gorodetskiy)

(Sand, Foundry) (Pneumatic machinery)

ANILOVICH, V.Ya., kand. tekhn. nauk; GORODETSKIY, I.M., inzh.; DYU-IN YU, inzh.; FEDOROV, Yu.I., inzh.; CHERNYAVSKIY, I.Sh.

Investigating the dynamic loads in the transmission of the T-25 (T-74) tractor during starting. Mekh. i elek. sots. sel'khoz. 21 no.3:1-4 '63. (MIRA 16:8)

1. Khar'kovskiy traktornyy zavod.
(Tractors—Transmission devices)

GoRoDeTsKiy, I.)a.

KHRODZENSKIY, I.Ya.; MOHACHEVSKIY, A.G.; CHEVSKIY, V.F.

Liquid - vapor equilibrium and miscibility of the components in the system cyclohexanone - water. Vest. LGU 14 no.22:136-139 '59.
(MIRA 13:1)

(Cyclohexanone) (Phase rule and equilibrium)

GORODETSKIY, I.Ya.; OLEVSKIY, V.M.

Vapor-liquid equilibrium and mutual solubility of the components in the system cyclohexanone - cyclohexanol - water. Vest. LGU 15 no.16: 102-108 '60. (MIRA 13:8)
(Cyclohexanone) (Cyclohexanol)

S/032/60/026/05/11/063
B010/B005

AUTHORS: Gorodetskiy, I. Ya.; Olevskiy, V. M.

TITLE: Analysis of the Ternary System Cyclohexanone - Cyclohexanol - Water

PERIODICAL: Zavodskaya laboratoriya, 1960, Vol. 26, No. 5, pp. 547-549

TEXT: To investigate the equilibrium between the liquid and the vapor phase, as well as the mutual solubility of the components of the system mentioned in the title, a method was used which consisted of the chemical determination of the cyclohexanone amount and the measurement of the refractive index of the system. The investigations are of special importance to the synthetic fiber industry. In the system mentioned, the cyclohexanone content is determined with hydroxylamine according to a new method (Ref. 1). Two homogeneous and one heterogeneous range are present in the solution diagram (Fig. 1) of the system. The dependence of the refractive index on the composition of the system was first determined in the homogeneous range, and corresponding diagrams (Figs. 2, 3) were plotted according to a method described by B. V. Ioffe and

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A. G. Morachevskiy (Ref. 4). The homogenization may be carried out by addition of a measured quantity of water or cyclohexanone. An example for the analysis of a heterogeneous mixture of cyclohexanol, cyclohexanone, and water as well as the corresponding calculation formulas are given. An accuracy of determination of 0.15-0.25% was achieved in the homogeneous and of 0.5-0.9% in the heterogeneous range. There are 3 figures and 7 references, 6 of which are Soviet.

ASSOCIATION: Gosudarstvennyy institut azotnoy promyshlennosti (State Institute of the Nitrogen Industry)

GORODETSKIY, I. Ya., Cand. Tech. Sci. (diss) "Investigation in Field of Separation of Semi-products of Production of Some Synthetic Materials," Moscow, 1961, 12 pp. (Moscow Inst. Precise Chem. Tech.) 200 copies (KL Supp 12-61, 265).

GORODETSKIY, I. Ya.; OLEVSKIY, V.M.

Calculation of heteroazeotropic rectification processes. Khim.prom. no. 5:350-354 My '61. (MIRA 14:6)
(Distillation, Fractional)

GORODETSKIY, I.Ya.; OLEVSKIY, V.M.

Apparatus for the determination of equilibrium between liquid and vapor of thermally unstable substances of low volatility. Khim.i tekh. topl. i masel 7 no.11:50-56 N '62. (MIRA 15:12)

1. Gosudarstvennyy proyektnyy i nauchno-issledovatel'skiy institut azotnoy promyshlennosti.

(Vapor density)

GORODETSKIY, I. Ya.; OLEVSKIY, V. M.; LEVITANAYTE, R. P.

"Issledovaniye massoperedachi v absorbtsionnykh apparatakh pri nalozhenii vibratsionnykh kolebaniy."

report submitted for 35th Intl Cong, Industrial Chemistry, Warsaw, 15-19 Sep 64.

Gosudarstvennyy institut proektirovaniya azotnoy promyshlennosti, Moscow.

GORODETSKIY, I.Ya. (Moscow); OLEVSKIY, V.M. (Moscow); LEVITANAYTE, R.P. (Moscow); LEGOCHKINA, L.A. (Moscow)

Apparatus for determining equilibrium between liquid and vapor. Zhur.fiz.khim. 38 no.11:2744-2746 N '64. (MIRA 18:2)

L 10677-66 EWT(d)/EWT(l)/EWT(m)/EPF(n)-2/EWP(t)/EWP(b)/EWA(m)-2 IJP(c)
ACC NR: AP5025407 JD/WW/AT SOURCE CODE: UR/0181/65/007/010/3134/3136

AUTHOR: Sheynkman, M. K.; Gorodetskiy, I. Ya.; Yermolovich, I. B.

ORG: Institute of Semiconductors AN UkrSSR, Kiev (Institut poluprovodnikov AN UkrSSR)

TITLE: Effect of temperature on the cross sections for capture of electrons by recombination centers in CdS and CdSe

SOURCE: Fizika tverdogo tela, v. 7, no. 10, 1965, 3134-3136

TOPIC TAGS: cadmium sulfide, cadmium selenide, single crystal, semiconductor research, capture cross section, photoelectric property

ABSTRACT: Three recently proposed methods are used for studying the relationships between temperature and the cross sections for capture of electrons by r-centers and various s-centers in CdS and CdSe single crystals in the 110-330°K temperature range. The methods used are based on a study of the photocurrent kinetics when the crystals are illuminated: a) by a powerful shoft pulse of light--the "luminous shock" method; b) by constant radiation and a weak pulse of stimulating light--the "natural pulse" method; c) by constant illumination and a weak pulse of infrared light which quenches the photocurrent--the "IR pulse" method. The "light shock" and "natural pulse" methods were used for measuring the cross sections for capture by r-centers. Both methods gave extremely close values for S_r. The values of $S_s(T)$ were determined by

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ACC NR: AP5025407 3

the "natural pulse" method. High-resistance undoped photosensitive single crystals of cadmium sulfide and cadmium selenide were studied. The cross sections for capture by various r-centers in these crystals are extremely weakly dependent on temperature. The values of S_g are also only slightly sensitive to temperature near 110°K; however a further increase in temperature results in an exponential increase in $S_g(T)$ with an activation energy lying between 0.1 and 0.2 ev for various s-centers in CdS and CdSe. This increase in $S_g(T)$ starts long before the beginning of temperature quenching of photocurrent in these crystals. A theoretical model is proposed to explain the relationship between temperature and the capture cross section. The authors thank V. Ye. Lashkarev for valuable consultation. Orig. art. has: 1 figure.

SUB CODE: 20/ SUBM DATE: 23May65/ ORIG REF: 015/ OTH REF: 004

44,55

HW 2/2
Card

GORODETSKIY, K.I., inzh.

Some problems in the kinematics of axial piston pumps. Trakt. i sel'khozmash. 33 no.5:8-11 My '63. (MIRA 16:10)

1. Gosudarstvennyy soyuznyy nauchno-issledovatel'skiy traktornyy institut.

L 04251-67 EWT(d)/EWT(m)/EWP(f)/T DJ

ACC NR: AP6005389 (N) SOURCE CODE: UR/0413/66/000/001/0140/0140

AUTHORS: Kreysler, A. A.; Gorodetskiy, K. I.; Gluzman, I. A.

ORG: none

TITLE: An axial piston pump. Class 59, No. 177774

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 1, 1966, 140

TOPIC TAGS: axial pump, fluid pump

ABSTRACT: This Author Certificate presents an axial piston pump with a support on the intake and with a rotating cylinder block. The pump includes connecting rods with double-sided joints. One of the joints is connected with the piston and the other with the socket (see Fig. 1). The socket is mounted on one of the axial holes of the drive shaft flange and transmits the pressure force of the liquid being pumped through the hydrostatic bearing to the pump casing. The design reduces the leakage and increases the pump efficiency. The axial holes in the drive shaft flange run clear through, and each socket mounted in the hole contacts its flat face directly with the casing or is connected with a fixed part of the casing. Each socket has a recess in its flat face and is connected by axial channels to the connecting rod and the piston and to the proper operating chamber. This arrangement provides the

Card 1/2 UDC: 621.659

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ACC NR: AP6005389

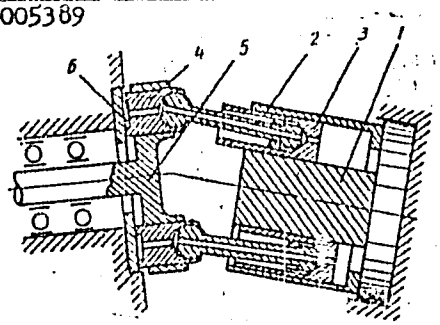

Fig. 1. 1 - cylinder block; 2 - connecting rods; 3 - pistons; 4 - socket; 5 - drive shaft; 6 - recess in the socket

individual hydrostatic bearing of each piston and the correspondence between the back pressure in the bearing and the pressure in the operating chamber. Orig. art. has: 1 figure.

SUB CODE: 13/ SUBM DATE: 02Jun62

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GORODETSKIY, L. A.

"Reflection of Slow Electrons From Pure and Film Coated Metallic Surfaces," by L. A. Gorodetskiy, Kiev State University imeni Shevchenko, Izvestiya Akademii Nauk SSSR, Seriya Fizicheskaya, Vol 20, No 9, Sep 56, pp 1023-4 (abbreviated report)

The widely used film coated metallic cathodes were investigated, with particular attention to the reflection coefficient of slow, 2 - 10 eV, electrons from tungsten, previously strongly vacuum heated, from barium and silver vacuum deposits on tungsten, and from tungsten thinly coated with barium and oxygen. The reflected and secondary electrons were driven to a collector and the reflection coefficient measured by a curve of lagging current. It was found that the electron reflection coefficient at an energy below 4 eV is very responsive to the state of the metallic surface. Coating with a film of residual gas increases the reflection by a factor of two to three. The dependence of the reflection coefficient on the energy of primary electrons for pure tungsten does not agree with the theoretical curve. An increase of reflection is observed with rising energy. However, with a thick deposit of barium and silver on tungsten, the dependence of the reflection coefficient on the primary electron energy concurs with the theory and the reflection decreases with rising energy.

Sum 1258

1. GORODETSKIY, L. L.

2. USSR (600)

4. Polecats

7. Effect of various methods of skinning steppe polecats on the quality of furs during tranning. Trudy VNIO No. 10, 1951.

9. Monthly List of Russian Accessions, Library of Congress, February 1953, Unclassified.

USSR / Soil Science. Cultivation. Improvement. Erosion. J-4

Abs Jour : Ref Zhur - Biologiya, No 16, 1958, No. 72739

Author : Gorodetskiy, L. N.
Inst : Azerbaydzhan Scientific-Research Institute of Cotton Growing
Title : Salinity From Temporary Surface Water in Soils of Shirvana

Orig Pub : Byul. nauchno-tekhn. inform. Azerb. n.-i. in-ta khlopkovodstva, 1957, No 2, 73-74

Abstract : Salinity of soils of the cotton fields in the eastern part of the Shirvana Steppe from seasonal surface and irrigation waters is observed in different places with an area 0.0-1 ha. This phenomenon is conditioned by the presence in the alluvial stratified grounds of clay lenses inpenetrable by water which prevent the infiltration of water in depth. Vertical drainage is recommended. -- T. D. Morozova

Card 1/1

GORODETSKIY, L.N., inzhener.

Manufacturing bimetallic nuts. Mashinostroitel' no.7:37-38 Jl '57.
(Bolts and nuts) (MLRA 10:8)

GORODETSKIY, L.N., inzh.

Improved method of production of bimetallic bushings. Vest. mash. 38 no.3:39-40 Mr '58. (MIRA 11:2)
(Bearings (Machinery)) (Metal castings)

25(1) SOV/117-59-6-21/33

AUTHORS: Gorodetskiy, L.N., and Izvarin V.D., Engineers

TITLE: Cutting the Racks of Self-Centering Chucks

PERIODICAL: Mashinostroitel', 1959, Nr 6, p 34 (USSR)

ABSTRACT: The repair of self-centering lathe chucks is generally connected with the cutting of rack teeth, which is the main difficulty of this job. The authors describe a new technology, which is easily comprehensible, of cutting racks on a lathe, without the aid of complex tools. This method was introduced at the zavod imeni Petrovskogo (Plant imeni Petrovskiy) by one of the authors. There is 1 diagram.

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SOV/1[illegible]-10-19/20

AUTHORS: Gorodetskiy, L. N. (Assistant Chief of Rail-Beam Shop), Zadorozhnyy, L. S. (Shop Foreman), Shemshey-skaya, R. M. (Senior Engineer of Central Plant Laboratory)

TITLE: Increased Life of Cutters for Cutting Hot Metal

PERIODICAL: Metallurg, 1959, Nr 10, pp 27-28 (USSR)

ABSTRACT: In the railbeam shop of Plant imeni Petrovskiy (zavod imeni Petrovskogo) cutting edges of cutters are built up with 3Kh2V8 alloy steel. After forging and machining 45-steel cutters are annealed from 810 C. An automatic ABS-type welding head is used and work is done submerged in AN-20 flux of the following composition (%): SiO_2: 19-24, Al_2O_3: 27-32, CaF_2: 25-33, MgO: 9-13, CaO: 3.0-9.0, K_2O: 2.4-3.0, FeO and MnO: maximum 1.0 and 0.5, respectively, S: 0.08, P: 0.05. Maximum flux moisture:

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Increased Life of Cutters for Cutting Hot Metal

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0.1%. Electrode wire PP3Kh2V8 made of powdered material and direct reverse polarity current of 420 to 450 amp are used. Arc voltage: 32 to 34 v, speed of arc motion: 22 m/h, speed of wire feed: 56 m/h. The latter can varied by interchangeable gears within the range of 28.5 to 255 m/h. The built-up cutter is placed in a furnace heated to 400 C. The furnace is turned off and slowly cooled with the cutter. Tempering for 2 hrs at 300 C follows. Hardness: 45 to 49 R_C. Chemical composition of built-up metal (%): C: 0.29, Mn: 0.89, Si: 0.92, Cr: 2.5, W: 9.37, V: 0.33, S: 0.030. Average cutter life: 498 hours. The use of built-up cutters reduced their consumption by thirty times. There are 2 figures.

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Increased Life of Cutters for Cutting Hot Metal

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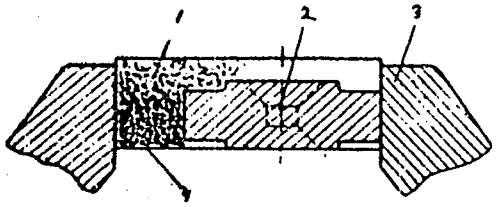

Fig. 2. Diagram of cutter setting before building up: (1) cutter; (2) flux; (3) vise; (4) box.

ASSOCIATION: Plant imeni Petrovskiy (Zavod imeni Petrovskogo)

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